

# flowing *Forward*

**Getting Started at  
Hickory Hill Farms**

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PROUDLY  
**AMERICAN  
MADE**

 **LOCATIONS**

**MANNING**  
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Manning, IA  
712.655.9200

**DUBUQUE**  
10166 Hartbecke Rd  
Suite B · Farley, IA  
712.655.9203

**WORTHING**  
47086 Pioneer St  
Worthing, SD  
712.655.9202

**AURORA**  
3626 State Route 90  
Aurora, NY  
712.655.9206

**ANGIER**  
BullDog Hose  
Company  
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Angier, NC  
712.655.9201

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Dothan, AL  
888.447.6441

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### OUR MISSION

### TEAMWORK INNOVATION ENJOYMENT

2025 marked a year of strong sales and operational growth. Through the hard work and dedication of many departments, people and processes, we successfully navigated a variety of challenges and achieved the best year in Puck's 15 years of manufacturing.

In 2026, we remain committed to creating wealth and a higher quality of life for our team, our customers and our community. The Puck spirit of innovation drives us to create the equipment and technology that define the standard for tomorrow.

In this issue of, *Flowing Forward*, you will see stories of teamwork, innovation, and enjoyment of not only our team, but our customers. Enjoy!

*NEVER STOP  
INNOVATING!  
JEREMY*





Puck's first TTR 20 rolling hose in Holland, MN operated by Twist-View Pumping.

By adopting this technology early, Twist-View Pumping positioned themselves ahead of the curve, gaining efficiencies that would help them scale and stay competitive in a growing industry.

### Learning From the Source

Intrigued by the new equipment, the Twist-View crew visited Manning, Iowa to find out more. The crew attended Pump School in order to learn from the manure application experts at Puck and talk through how to reach their pumping goals. "When we talked to Puck when we were down there, they were running the equipment on their own crew already," said Chris. "The efficiencies that we could get out of it was where we needed to be and where we wanted to be. That was the original reason for going with Puck."

### Proven Performance that Stands the Test of Time

Nearly a decade later, all four of the original Twist-View hose carts are still in use today, requiring minimal maintenance for their long service life. "I've got no reason to trade these TTR 20s in for new ones, but eventually I'm probably gonna be upgrading or growing the business, and still I think they're a rock solid piece of equipment." Twist-View Pumping has found success for over a decade with Puck's TTR 20 hose reels. "The TTR 20s have really stood the test of time for us," remarked Chris.

### Puck Equipment is Built to Lead

Puck equipment isn't just built to lead, it's built to last. Our durable manufacturing process means your equipment will outlast your current operation until upgrades are needed for expansion. Talk to your sales team member about the efficiencies needed to grow your manure pumping operation by calling 712.655.9200. ■

## Milestone Year for the TTR 20

Based out of Holland, Minnesota, Twist-View Pumping LLC is a family owned and operated dragline manure application business that is built on experience and hard work. As a longtime custom pumper, the Twist-View crew has had years of experience and many seasons to find the equipment that works best for them. A game-changing equipment purchase came back in 2015 when Puck's TTR 20 was released.

### A Game-Changing Purchase

"We bought these original four hose carts," said Chris Shulze, an owner and operator at Twist-View. "I think we have number one, number three, number six,

and number seven of the TTR 20," said Chris. "They were the first four we bought and the only four we bought." At the time the TTR 20 was the second iteration of Puck's turn table hose reel design, and had the largest hose carrying capacity. This was important during an industry growth period regarding hoses in dragline.

### Leading the Way with 10" Hose

"Back then, Puck was really the only company that had 10" hose and the equipment to deal with the 10" hose," said Chris. "These hose carts were the first of their kind, really." As dragline systems evolved, larger diameter hose became essential for increasing flow rates and improving overall efficiency. Always leading the industry, Puck was among the first manure applicators with the efficiency to effectively use 10" diameter hose and have a need for larger hydraulic carts. "At the time 10" hose was relatively new, there wasn't a whole lot out there. I don't think any other company really was promoting it and using it," remembered Chris. ▶





## From the First Built to 500 Strong

Puck's five hundredth TTR 20 in Assembly Department in Manning, IA.

After five years of manufacturing in our first dedicated facility and four expansions, Puck released their second largest turn table reel for large diameter hose. The first TTR 20 hose cart was released in 2015, during the same year we opened our Worthing, South Dakota location. Over the next 10 years, Puck built and sold 500 units of the industry-leading hose cart.

### Designing the First TTR 20

Jeremy Puck, CEO, remembers the first TTR 20 and its manufacturing. "This was an evolution going from the HC 16 into a hose cart that's bigger, that can carry more hose," said Jeremy. "Some design points we had to overcome included road width, transportation length, and

how to get through the field. The design led us to a tandem axle with four floatation tires on it to help get us through the field." Additionally, Puck took inspiration from a Kinze planter to turn the reel sideways. This allowed the hose reel to be narrow on roads while still providing width in the fields. The turned reel can also be helpful when laying hose in a ditch along the side of the road, deploying the hose from the side.

### Turning Innovation into an Advantage

Based out of Holland, Minnesota, Twist-View Pumping LLC is a family owned and operated dragline manure application business. Intrigued by the new equipment in 2015, the Twist-View crew visited Manning, Iowa to find out more. "Back then, Puck was really the only company that had 10" hose and the equipment to deal with the 10" hose," said Chris Schulze, owner and operator at Twist-View. "These hose carts were the first of their kind, really." Always leading the industry, Puck was among the first manure applicators with the efficiency to effectively use 10" diameter hose and have a need for larger

hydraulic carts. "At the time 10" hose was relatively new, there wasn't a whole lot out there. I don't think any other company really was promoting it and using it," remembered Chris.

### The First Four TTR 20s

After their visit, Twist-View ended up purchasing four of the new turn table reels. "We bought these original four hose carts," said Chris. "I think we have number one, number three, number six, and number seven of the TTR 20," said Chris. "They were the first four we bought and the only four we bought." Puck hose carts have always been designed for longevity and durability, but they've seen some upgrades along the way.

### Refined Through Real-World Use

Innovation and teamwork helped propel the turn table reel to be the best product possible. Now on version five, the TTR 20 has been upgraded over time through our own use, feedback from others, and a desire to find more efficiencies. Among the upgrades to the hose cart is the chassis adjustments. "The tongue position has changed drastically. We went from a single tube into an A-frame tube," said Jeremy. The establishment of that base feature allowed Puck to explore

capacity improvements.

"The idea behind the TTR 20 was; how do we carry two miles of 8" hose? How do we carry a mile of 10" hose?" recalled Jeremy. Since asking those questions, Puck has designed and released solutions with carrying capacities that exceed the original goals. "The core functionality of the cart hasn't changed, it's just been updated," said Jeremy. "Some of our customers also remember going from the plastic slides underneath and some of the issues with it sticking from frost and mud and debris," noted Jeremy. "We've gone to a slew bearing design that helps it swivel from side to side."

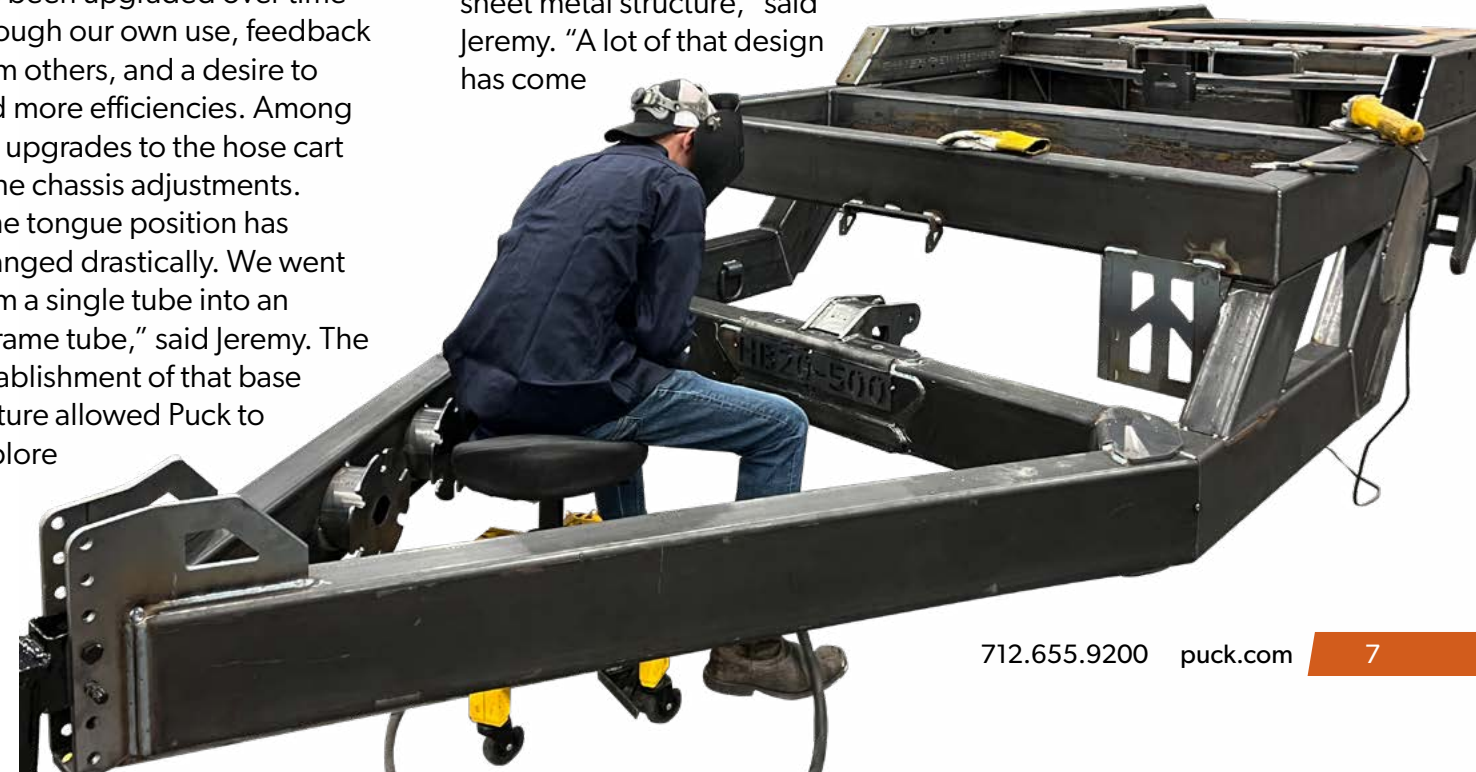
### Built for Longevity and Growth

Puck has seen some major changes, both in company size and our manufacturing process. "Some of the design features of the TTR 20 have changed from a tubular structure to more of a sheet metal structure," said Jeremy. "A lot of that design has come

help us produce these faster and more efficiently through the shop, as well." Puck equipment isn't just designed for efficiency in the field, it is also designed for efficiency of maintenance and repair. The manufacturability of the cart has changed to allow for easier upkeep, as well.

### Still Working Years Later

Chris and the crew at Twist-View are still benefitting from the longevity of the original hose reels. All four of the original Twist-View hose carts are still in use today, requiring minimal maintenance for their long service life. "I've got no reason to trade these TTR 20s in for new ones, but eventually I'm probably gonna be upgrading or growing the business, and still I think they're a rock solid piece of equipment." Twist-View Pumping has found success for over a decade with Puck's TTR 20 hose reels. "The TTR 20s have really stood the test of time for us," remarked Chris. ■



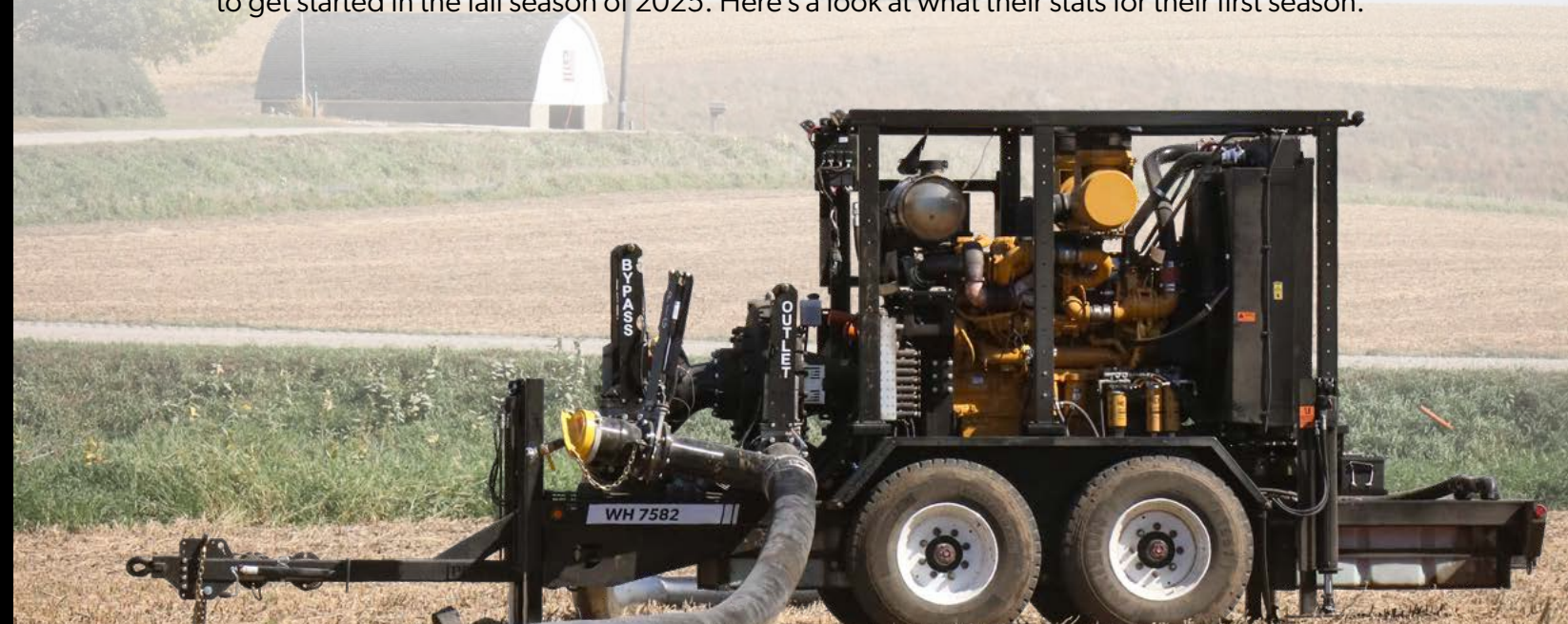
# 1 Million Miles of Deliveries

Puck Logistics team members Marc Arp and Robert Ehlers have been all over the United States delivering parts and equipment, totaling **1,000,000 miles driven!**



# Hickory Hill by the Numbers

The Northwest Iowa-based operation Hickory Hill Farms Inc. made the decision to bring the dairy's manure pumping and application in-house. This dairy has about 5,500 head of cows and approximately 1,800 acres of fields. Hickory Hill bought a full line of dragline application equipment to get started in the fall season of 2025. Here's a look at what their stats for their first season.



**4 WH 7582 PUMPS**

**5 CREW MEMBERS**

**33 DAYS PUMPED**

**3500 HIGHEST GPM**

**54 MILLION GALLONS PUMPED**

# Puck's Product Development Process

Puck's product design and development process is foundational in evolving an idea from concept to a finished product. It starts with generating ideas, gathering input, and establishing clear specifications: but it's much more than simply designing a machine from a blank slate. Our engineering process helps to create an internal roadmap that guides us from conceptualization to reality.

## Identifying Needs

Most of our projects begin with identifying a needed solution within the industry. That might come from agriculture, industrial firefighting, mining, oil and gas, or even a combination of markets. The need is not always an entirely new product: sometimes the goal is to make an existing process safer, more efficient, or simply more effective for the end user.

Once an opportunity for innovation is identified, the first formal step is bringing in our stakeholder group. This is a group that may include individuals from sales, engineering, marketing, company leadership, accounting, business development, and our production staff. The teamwork across departments is essential in sharing and understanding how the product will be used. This knowledge includes operational scenarios, human and machine interaction, market impact, and customer benefit. The engineering team also engages directly with specific customers to understand current operational procedures, challenges, and the functionality of existing products. That direct feedback is extremely valuable. It allows the engineers to design around real world use rather than assumptions.

After we have gathered the core requirements such as criteria, specifications, wants, and needs, our Project Engineering team gets to work. Their job is to take the input from the project stakeholders and organize it into a structured set of product specifications. This is where we define how the product should look, feel, operate, and function, along with any required configurations, desired equipment options, and performance expectations.

## Beginning Designs

Once the product specifications have been established, we move into early design activities. We create concept Computer-Aided Design (CAD) models, run preliminary calculations in key areas, and assemble the formal specification document. That document is reviewed several times by the Project Engineering team and stakeholder group, and we refine it further after each review to make sure goals and intentions remain aligned.

Once the project reaches that refined stage, the team gathers detailed internal feedback from Product Design, Digital Solutions, Manufacturing Engineering, and Production. These teams help ensure that the product can actually be manufactured efficiently and consistently. They aid in establishing tooling and fixturing needs, outlining assembly processes, and establish realistic project milestones and cost estimates.

We follow defined communication structures, documentation controls, and milestone review procedures for each project. These checkpoints ensure we are meeting performance requirements, maintaining timelines, and staying within budget. If an issue arises in meeting the requirements, it's identified, reviewed, discussed, and corrected early in the process rather later on in the product lifecycle. ▶

After milestones and cost estimations are finalized, the engineers present the completed specification package for approval to the stakeholder group. Once it's approved, the project is officially released and scheduled into Engineering for full detailed design and development.

## From Planning to Accomplishing

During the product design and development phase, our Product Design team focuses on fully detailing every part of the product. That includes weldments, assemblies, component drawings, all required documentation, purchased components, and every product configuration. At the same time, Product Design works closely with the Digital Solutions group to design and develop the electrical and power conveyance systems, along with the control systems and software programming required to ensure the machine operates smoothly and reliably. This collaboration is what brings the concept to life, using the established product specifications document as their roadmap through the design and development process.

Once design and development are complete, Puck's Manufacturing Engineering team steps in. They ensure that all components can be manufactured by validating dimensional data, generating and setting up machine programs, and creating the manufacturing documentation required to produce each component. Fixturing and specialty tooling identified earlier in the process are also finalized and either scheduled or implemented as needed.

The Manufacturing Engineering team also manages bills of materials, component operations, and all related details within Puck's internal resource planning system. This system schedules work, creates jobs, and ensures that every part arrives where it needs to be, when it needs to be there, supporting an efficient manufacturing environment.

Once the Manufacturing Engineering team has finalized all required component set up, validation, tooling, and manufacturing requirements, our Purchasing and Scheduling teams go to work on sourcing all required components, building out a manufacturing schedule, and ensuring the product is manufactured correctly and with all components required from the Bill Of Materials.

As the first articles move through the manufacturing facility, members of the engineering team validate part fitment, fabrication instructions, tooling, and assembly documentation. They also conduct comprehensive testing to make sure the product performs safely and meets all defined specifications. Only after it clears this validation stage do projects move into full production and prepare for the new and/or improved product's launch to market.

## Innovation Built to Lead

There is never any guessing happening in Puck's product development. We're not building products based on assumptions or trends alone. There is a stated need or industry solution behind every idea that crosses our desks. Every product begins with defined requirements, measurable specifications, and stakeholder alignment. It's reviewed, refined, engineered, validated, and tested before it ever reaches a customer.

With established goals, thorough documentation, and a lot of teamwork, Puck products are designed and built with the end user in mind. We put time and thought into every new product or equipment upgrade. Puck products aren't just built to solve today's problem, they're Built to Lead. ■

## Becoming A More Efficient Manufacturer

Puck's production line started in a barn and has expanded rapidly over the years. In the 15 years since they built the first dedicated shop, there have been numerous expansions adding acres of extra work space. The largest expansion to date was completed for move-in January of 2023. The production work space increased from about 40,000 square feet to accompany an additional 100,000 square feet that also connected three previously separate buildings.

### Designing a Better Production Flow

Prior to the expansion, five production departments struggled to work in the limited space. "Parts would come off of one machine, go to a different warehouse to be organized, then brought back in, and it was just kind of not ideal by any means," said Kris Williams, Plant Manager. "Our biggest goal with the expansion was to lay things out in a way that made more sense for a better flow of movement of materials and products."

The movement of materials wasn't the only pain point eased by the expansion. The additional space meant there was more room to start projects without a requirement to complete them before moving on. "If Assembly is waiting on a purchased part, it's okay for that product to sit there for a few more days," said Kris. "They can just move over to another Bay and continue on with production if there's any delays." Of course, more space allows for safe movement of employees, as well. There

are less hazards for dripping or dropping things, and there is distance between employees.

One major flow change that affected an entire department was the rearrangement of the Painting and Coatings Department. Previously, the paint booths were side by side in a corner of the production shop. This created difficulty with maneuvering materials, particularly larger equipment with a longer chassis. The expansion allowed the department to line up each stage of the process for a continuous flow. The new capabilities of the painting team has the potential to double the product batches completed in a day when needed.

### Expanding Machining Capabilities

The expansion in Manning also came shortly after the acquisition of U.S. Coupling to the Family of Brands. Puck had one manual lathe and one CNC lathe, which create cylindrical parts. That doubled with two additional CNC lathes brought to Iowa from U.S. Coupling. Around the same time, Puck also doubled lasers and brake presses. A new S7 Mazek laser and a new Saphon press brake, as well as a horizontal mill were added to the facility's toolbelt.

The Fabrication Department saw an increase in jig tables and upgraded continuums. Over time, Puck has been replacing older welders with Deltaweld. "It's a way better machine and we can dial in our welds better with less splatter," said Kris. "We get a stronger, cleaner weld, and we spend less time cleaning things up for paint." In addition to the Miller Deltawelds, there was also the new TIG Welder for welding stainless and aluminum.

### Year-Round Product Testing

Another major change to the production flow was the addition of a testing tank. Now, new products are quality tested inside the facility near the assembly bays with a repurposed frac tank. Harsh Iowa winters used to keep us from our normal testing procedures when the water outside was frozen. "We can do it inside now and actually put a load on the pumps and see how things are operating, check the temperatures and all that," said Kris. ▶

### Documenting for Consistency

With all the adjustments to workflow, documentation has been a process requiring teamwork from everyone to complete. Without a guideline, there is always a variance in how a task is completed by different people. "We're dialing all that in and documenting all that so that it turns out the same every single time," said Kris. "That way, if the customer has an issue in the field, we can send them a part and know exactly like, 'hey, we did for sure use this, it's not just some random fitting that we found on the floor.'"

The new production layout provides a base of operating procedures to be built upon and standardized. Product specifications, build manuals, and other documentation has been created to ensure that any new employees in 15 years can make the same quality of products we make today. Although it can be easier with first article projects, the documentation is being done for every single product made. "It's a little painful on the shop floor to get through, but we all are invested in it and understand the benefits of dialing everything in perfectly one time and then we don't ever have to go back and touch."

### Smarter Scheduling for Long-Term Efficiency

Puck has also started refining the scheduling of products through production to maximize efficiency. Materials are grouped together by the tools needed to craft them. These materials are sent through the line in batches to minimize retooling and get more output for each minor adjustment to machines. Puck doesn't just innovate for efficiencies in liquid transfer, we aim to streamline our manufacturing to withstand the test of time. ■



# FAMILY OF BRANDS

## STRONGER TOGETHER.

*Powering performance across industries.*

From precision engineered couplings to high performance hose, control systems, and firefighting solutions, our Family of Brands — Puck Fire, LightSpeed, BullDog Hose Company, and U.S. Coupling — deliver unmatched quality and reliability. Together, we're building smarter systems for the toughest jobs in municipal and industrial markets.





The Industry Leaders are  
**HIRING!**



**U.S. COUPLING**

**APPLY TODAY**

## Showing Love to Our Communities

February provided a meaningful opportunity to pause and reflect on the mission that guides everything we do at Puck. Our purpose is rooted in creating wealth and a higher quality of life for our team, our customers, and our community.

This mission comes to life through the work we do everyday when we create products, services and jobs, create an atmosphere that supports happiness and longevity and believing hard work leads to rewards and satisfaction, the key ingredients to an enriched quality of life.

At Puck, pride in our work goes hand in hand with pride in the people and communities we serve. Across the regions where our team members live and work, access to consistent, nutritious meals is not always guaranteed for every family. Food insecurity remains a challenge for many households, even within communities that may otherwise appear thriving. Recognizing this reality, our team came together in February with a shared commitment to make a positive impact through a company-wide initiative.

Working together has always been central to Puck's culture. The same teamwork that fuels innovation, problem-solving and progress within our company also fuels the ways we support the communities around us. That spirit was on full display during our "Showing Love to Our Communities" food drive, an initiative that invited employees across multiple locations to come together around a common goal.

What began as a simple initiative to collect non-perishable goods quickly became a powerful example of our mission in action. Through the collective efforts of our team members across the company, Puck donated a total of 2,328 non-perishable food items. These donations were directed to organizations dedicated to serving local families and individuals in times of need. The donations were distributed among several

community partners. The Manning & Area Food Bank Society in Iowa received 1,298 items, the Angier Area Food Pantry in North Carolina received 783 items, the Wiregrass Area Food Bank in Alabama received 110 items and the Sioux Falls Food Pantry in South Dakota received 137 items. Each organization plays a vital role in ensuring food reaches those who need it most within their respective communities.

While the numbers are meaningful, the true impact of this initiative extends far beyond the totals. Together, these contributions translate into meals for families, support for local organizations, and a strengthened relationship between Puck and the communities that support and surround us.

The success of this effort reflects the generosity, compassion and teamwork of our employees. By participating in this initiative, our team helped strengthen communities while reinforcing a culture built on care, collaboration, and shared purpose. ■



*Pictured above left to right: Sara Crawford- Administrative Assistant, Megan Carlson- Sales Operations Specialist, Sydney Macumber- Buyer, Laurie Stein- Food Pantry Representative, Katie Kelderman- Digital Marketing Specialist, and Kris Williams- Plant Manager.*

**EXCELLENCE**  
**IS THE**  
**GRADUAL**  
**RESULT**  
**OF ALWAYS**  
**STRIVING TO**  
**DO BETTER.**

**// PAT RILEY**

# Puck Application 2025 Season Recap

Puck has been in the business of manure transfer since 1979, adapting to dragline in the 90s and improving its efficiency every year. Our innovation is motivated by the desire to improve efficiency and move more gallons in shorter periods of time. All of our equipment innovations and upgrades are tested by the Puck Application crew, which is still running after more than 45 years in the industry.

## From 1,000 to 5,000 Gallons Per Minute

Jake Doyel, Puck Application Manager, has been pumping with Puck for 20 years. “I’ve seen a lot, been around for a while,” said Jake. “I’ve seen the business go from pumping a thousand gallons a minute up to people reaching the 5,000 gallon per minute range.” Many of these changes were tried and tested by Puck application crews at a range of manure storage facilities and fields. Puck Application currently works at dairy farms and hog barns across Western Iowa and in Eastern South Dakota.

## A Changing Application Season

“A change I noticed in 2025 is that our spring application has decreased,” noted Jake. “We don’t do quite as much pumping in the spring anymore. We do a little throughout the summer.” As always, manure application is dependent on the weather. Jake said he “noticed we got a lot of rain. We had some more wet conditions in the summer, it kind of pushed back some chopping, some haylage, all that type of stuff. It made it harder to get to the field, so we actually had a shorter spring season.” The Puck Application crew pumped less in the summer as well, which meant there was more to pump come fall season.

## Finding Efficiency in the Field

The start of fall was decent, but also brought more rain. It eventually dried up enough for a successful season of pumping. “We ended up having a big year overall,” said Jake of 2025. “We have a lot of situations in our systems that limit us in gallons per minute, so what I try to improve is true efficiency.” The Puck Application crew has managed to improve efficiency, getting better each year. “We’ve got guys coming back every year. That does a lot for camaraderie,” Jake pointed out. He added that “it also helps that everyone knows their roles and what they’re supposed to be doing.”

Last year was a big milestone for Puck Application. They hit personal records in gallons per day, gallons per week, and gallons per month. Jake says 2025 was a success that motivates his team – and hopefully Puck as a whole – to keep improving efficiency. ■

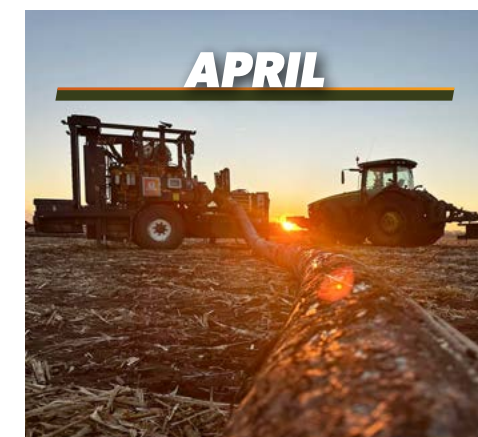


*Go behind the scenes with Jake as he breaks down his team’s 2025 application season.*





# 2026 Calendar Photos



## tech Tip

Whether it's a bad weather day or you're prepping for the upcoming season, it is always a good idea to check in on your equipment. Service Manager Luke has provided some tips for maintaining your hose carts for long service life.

- ✓ Check motor bolts and fasteners on the motor mount are tight
- ✓ Ensure the sprocket on the hose cart motor is directly in line with the sprocket on the dome of the hose reel
  - ✓ If these get off-center or out of line, the chain can jump or break, causing failures of your hose cart
- ✓ Make sure your grease points are checked regularly



For turn table reels like the TTR 20 and TTR 30, make sure you check both sides of the reel for each motor mount and sprocket. Get more maintenance tips and questions answered with our direct service line by calling 712.655.9250. ■

## Getting Started at Hickory Hill Farms

Hailing from Northwest Iowa, Hickory Hill Farms Inc. made the decision to bring the dairy's manure pumping and application in-house. This dairy has about 5,500 heads of cows and approximately 1,800 acres of fields. Hickory Hill built their crew with current employees from around the dairy. Most of these employees were brand new to pumping but willing to put in the work. With their crew decided, Hickory Hill bought a full line of dragline application equipment to get started in the fall season of 2025.

### Planning Equipment Purchases

"Getting this project started, we talked to Joe Heese a lot," said Darren Broersma, manager of Hickory Hill. "He went over a lot of stuff I never would have even thought of until we

were doing it ourselves." Joe Heese, Puck sales team member, met with Darren and the team at Hickory Hill to review the numbers. This planning helped find the pumping system that would fit their needs and wants. Manure type, distance to pump, flow rate, and geography all factor into choosing equipment for the system designed for your operation.

Understanding these numbers and needs required an open mind and a desire to learn. The newly appointed pumping crew for Hickory Hill traveled down to Manning, Iowa for a summer session of Pump School. "Pump School was probably the most important part and the biggest reason we felt comfortable with Puck," said Darren. "We went there for two days, went through the numbers, talked to other people ▶

who have done it. We saw some hose rolling chain drills on the shop floor. It all made me feel comfortable with something we've never done before."

### Planning in the Field

Joe continued to meet with Darren and his crew in preparation for their first season. "We spent a lot of time looking at maps to pre-plan different strategies," said Joe. "Then, when the pumping season got closer, we went to each field and expanded on the original plan with roads, culverts, obstacles, and set layouts in mind." Joe began visiting periodically to train the crew in things like hose moving and hose rolling techniques, proper agitation at site, and pulling the application tractor.

"Naturally, we were always talking about preventative maintenance, planning ahead, and safety," said Joe. Of course, you don't always have to have a Puck employee in the field with you for equipment monitoring and troubleshooting. "LightSpeed is huge with the training and monitoring process," noted Joe. "Whether

I'm a mile away from site or back at the Puck office, I can check in with the guys and see how it's going."

### First Season Pumping

At the start of the pumping season, Darren and his team felt confident, if a little nervous, in their ability to pump and apply their own manure for the first time. Joe Heese visited to assist with the startup and ensure someone was there to help if questions came up. Eager to get started, they began agitation in the first of their lagoons and started pumping in mid September.

By day three, Joe began taking off the training wheels for the crew and letting them take the lead. "The guys picked up on this quickly ▶



and their questions and attention to details was admirable by the end of fall." In late October, they were finishing a few more fields of their neighbors that had been tacked on to their original plans late in the season. It was easy to see the ease with equipment and tasks that the rookie crew developed over their first pumping season.

As a first-time crew, the Hickory Hill team was moving an average of two million gallons of manure a day. With more than 52 million pumped in six weeks, they were doing well. "We learned a lot, from simple things like not to drag empty hoses, how to roll them up, doing the bow ties," said Darren. "Just the right way to turn around and do a nice job so we leave the fields good for our customers and our farmers."

### Assistance Eases Stress

There's great knowledge in the courses at Pump School. However, it never hurts to have a little extra help when doing something for the first time. "By the end of Joe's time here, we were fairly comfortable with the job," remembered Darren. "Then over the course of the next five weeks we honed in on some efficiencies and figured some stuff out better." Joe Heese may have helped Hickory Hill figure out which equipment was best for their operation, but his manual labor wasn't technically part of the sales deal.

Darren noted that "the fact that they were willing to send someone up here who's got 20 plus years of experience was a huge reason we went with Puck. I think it was worth what we paid for that." Hickory Hill, with data-backed knowledge and support from Puck, was able to have a very successful first season of pumping.

### Looking Ahead

What started as a new venture for Hickory Hill Farms quickly became a point of pride for the crew. With the right planning, training, and support behind them, the team proved that even a first-year operation can run efficiently when the groundwork is done right. After a successful first season and millions of gallons pumped, Hickory Hill now looks ahead to future seasons with greater confidence, continuing to refine their system and build on what they learned in year one. ■

# BUILT TO LEAD.



# Applying Slurry Under Variable Field Conditions

This article was originally published by Progressive Dairy. You can read the full version [here](#).

Working outdoors will always be unpredictable, and the narrow window of time when applying manure means there is less time to wait for good ground conditions. With heavy equipment and variable field environments, there are steps that can be taken to minimize damage to fields during slurry application.

## Minimize Compaction

A best practice when doing any work in a field is to minimize the number of passes across the field. Most farmers know to keep to one path through the fields if they need to drive over it. Pulling equipment out of the field should follow the same path taken during setup. In this aspect, dragline application has a clear benefit over manure tanker wagons, as it requires far less passes to be made during application. It also reduces compaction, especially during non-ideal conditions since dragline systems don't carry the same amount of weight tankers do.

Equipment is larger today than a decade ago, and the bigger tractors have a bigger footprint. To accommodate for this, there have been changes in equipment standards and setups over the years. Floater tires on tractors and hose carts can help minimize compaction and soil disturbance. Front-wheel-assist tractors have transitioned to a preferred four-wheel drive for most operators with three-point hitch attachments for manure injection. Application toolbars are also wider than they once were to help minimize paths over the field. Toolbars used to have a standard of about 16 feet wide, and now most applicators are running 35-foot-wide toolbars. Some custom applicators use pull-type toolbars that range from 40 to 60 feet wide. Making these changes to equipment allows operators to be more versatile in non-ideal field conditions and to extend their application window.

## Dragline Hose on Difficult Ground

As drag hose diameters increase from the 5-inch standard of the past to the larger 7- or 8-inch drag hose of today, new hurdles appear. The larger hose is heavier, and it creates more of a rut, field bunching and pulls harder. The softer or muddier the field, the bigger gouge in the field a hose leaves. Larger hose can also pull harder with more tension. Excess bean stubble and cornstalks left over in a field can also contribute to bunching. To combat the creation of a deep groove, applicators can make little curves when going straight to take the hose out of the rut. Additionally, smaller sets can help minimize the hose catching or dragging across wet or compacted ground. Pay attention to your mainline and drag hose and what it is doing to get ahead of any issues.

## Potential Maintenance to Look For

Hard ground can create additional maintenance problems that applicators should be on the lookout for throughout the season. Hose couplers and menders wear out sooner as they are dragged across compacted earth. Replaceable parts on manure injection toolbars may also need to be replaced more often in a tough field. Crews injecting manure in average ground conditions may replace toolbar shoes twice a year, as well as blades when needed. Unyielding fields may see a need for twice the average replacements in a year. These ►

extra replacements can add up in a difficult year. Purchase extra to have on hand ahead of season if sets are on sale or have a special. If you are experiencing hard ground conditions, others likely are as well, and supplies might become limited deeper into the season.

## Customer Accommodations

Some customers may want manure application done a certain way based on personal preferences. Make sure your crew leader talks with the owner or manager to find out if they want specific things done before and after application, such as a multi-pass completed on end rows. Applications with heavier rates may want end rows worked before and after application to minimize runoff and maximize incorporation. In addition to the weather changing soil conditions, geographical differences can also affect ground conditions and how manure should be applied.

Customers in rocky, sandy or highly erodible land (HEL) may ask for broadcasting or minimal tillage. This can be particularly true in states like Wisconsin, where operators are encouraged to create minimal soil disturbance. However, tillage can help soil compaction and incorporate more nutrients with improved water infiltration. Nitrogen volatilization within the first four days after application is anywhere from 10% to 25% when broadcasting manure. In addition to nutrient loss, you also risk topsoil loss as loosened soils move with wind and water.

Knifing liquid manure into the field results in an average nitrogen volatilization rate of 0% to 2% within four days of application. As the deeper injection of manure spreads below the surface level into the root zone, the manure has a significantly reduced risk of runoff or shedding in rain events. Creating a deeper absorption zone helps to retain liquid and nutrients deeper in the soil, thus giving roots a better chance for a strong hold. Neighbors also benefit from a less noticeable odor of manure.

## Application Tips

In addition to impressing the customer, it never hurts for your crew to look good for the neighbors. Applying liquid to the ground creates mud, and making mud – especially mud that smells strongly – looks bad, so it's best to minimize disturbance of the field after application. A good steward of the land will work to minimize manure and nutrient runoff during application. Working the end rows around the field first creates a rapid absorption area that acts as a barrier to keep nutrients on the field they were applied to.

Custom applicators don't have control of the weather or geographical difficulties, but a little foresight and planning can make the job more efficient. ■

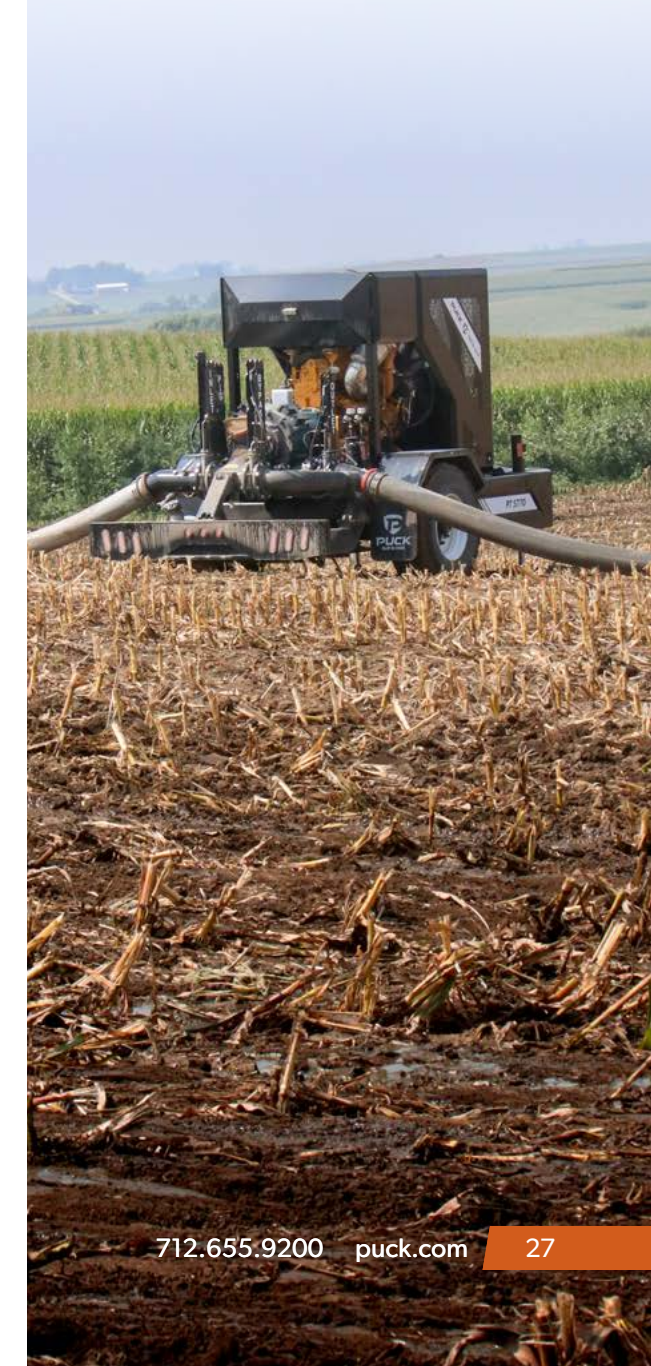
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# Christmas Movie Bracket

To help get into the holiday spirit, the Puck leadership team started off their last meeting of 2025 with a Christmas movie bracket. Leaders from across Puck Family of Brands locations weighed in on which Christmas movie is the best. Everyone had their opinions and a few match ups proved more difficult than others, but the votes were tallied and Home Alone came out on top. Check out the tournament bracket to see if you agree with their choices!



## More Than A Job, A Family Legacy

Since its beginning in 1979, Puck has seen growth in many facets of the business. One area is employees, seeing exponential growth over the years, particularly as we expand our product offerings and service locations. Yet alongside the name Puck, another family name has had a front row view of the company over the decades. Marc Arp and his son RJ have been key members of the company for decades.

### Humble Beginnings

Marc started back in 1979 when Ben Puck asked if he would help run vacuum trucks. At just three employees, they had near year-round work pumping manure and bailing hay. Before Puck worked out of the Red Barn, the three person team worked out of a two-car garage. When it was clear that the garage was too small, they moved up to an old hog house which is no longer standing. Of course, that hog house was too short to allow equipment to be pulled inside. "So we worked out on the platform," recalled Marc. "Didn't matter what the weather was. That's where you worked."

The vac truck business continued to grow, eventually taking on a five-wheel TerraGator and five vac trucks by 1998. Their regular year was still at just four employees, but that doubled in pumping season. Working primarily hog barns, a 1,000 head barn would take two or three days with vac trucks. Their first break into dragline manure transfer began when they were asked to man a line for someone who didn't have a crew available for the job. "And that was when Ben thought, man this makes sense because if manure continually flows you don't have to stop, get a load, go unload, come back, get another load," said Marc. "It was just continuous and that was what got us going."

By that fall, Ben had discarded a vac truck in favor of a toolbar, hose cart, and pumps. They slowly transitioned from a vacuum truck pumping business to a dragline pumping business over the next three years. The original dragline operation required a lot of pumps, which were small 4-inch hydro pumps. However, 1,000 gallons per minute was a big deal compared to a maximum of 20,000 gallons per hour with a 4,800 gallon tanker truck. Yet Puck was not yet a strictly dragline business, as it was still running vac trucks and TerraGators.

### Growing Up Around the Business

Although RJ Arp wasn't an employee until 2008, he often joined his father when it was safe to do so. As he grew up, his friendship with Ben's son Danny also made it easy to help out when he could. Marc and RJ Arp left dragline for those who were passionate about it, like Ben Puck and his son Jeremy, and Jake Doyel. "You built equipment in the Red Barn, but you weren't going to put 10 guys in the Red Barn and start doing this stuff," said RJ of their offseason work. "So you still had your hog barns that needed to be pumped with the truck yet. So Ben decided that he was going to buy a salvage tire business. And we went around and we

picked up junk tires from landfills and gas stations."

### Doing Whatever It Took

Before Puck's manufacturing took off, they were primarily doing repairs and maintenance on dragline equipment, which was still new in the early 2000s. In addition to picking up and transporting tires to a recycling center 100 miles away, the Arps would help out with equipment when they could. Before Puck began building hose carts, the Arps were responsible for transporting painted hose carts and bringing them back to the Red Barn for assembly. Marc and RJ began hauling equipment and parts in addition to tires. Tire transportation would happen for about 10 years of Puck history, taking place between equipment maintenance for the application team in the shop. Of course, the vac trucks for small customers were also still being handled by an Arp man until that finally came to an end in 2024. The vac truck business for Puck had the annual goal of 10 million gallons pumped before finally retiring the last truck.

The tire business, supplementing employee paychecks in the offseason, was just one way Puck found a way to keep people employed. "I've never seen any reason to leave," said Marc. "They always treat you fairly."

RJ added, "If you ever need something, you go to them and they'd do anything. People don't think about the atmosphere and flexibility when they think about taking a job, and we have that here better than

anyone else."

RJ was just employee number 12 when he started, and remembers when Puck began to take off. "LightSpeed really set us up, and the TTR 20 and the boat really cemented our place." From there, the manufacturing side of the business became the main focus as Puck had a full production floor making equipment.

### Finding Their Roles in A Growing Company

Their background in picking up odd jobs eventually saw them in roles that fit their skillsets; today Marc works in Logistics ensuring product deliveries are on time, and RJ does Parts Sales. Both roles are vital to Puck customers getting the most out of their time in the field and striving for an efficient pumping season. In addition to their time at Puck, the Arps have also been volunteer firefighters for decades and look forward to seeing where Jeremy Puck takes Puck Fire.

### Looking Ahead

"Jeremy's got big plans for Puck Fire, I'm curious to see where that will go," remarked Marc. The Arps admitted that it felt similar to when the manufacturing business first began for dragline equipment. It's daunting to enter a new industry, like firefighting or industrial pumping. However, both Marc and RJ have more confidence now to



## Our Team Members

enter those markets. "We have the stuff. We could do it. We know how to do it. We just have to convince everyone else that this makes sense," said Marc.

"It's going to be really cool when Puck Fire takes off," said RJ. "Especially since I've been a volunteer firefighter for the last 15 years. All the fire hoses and things are very cool. If I want something, I want it to come from Puck." Both RJ and Marc are volunteer firefighters for the Manning Fire Rescue, as well as six other Puck employees.

Marc mirrored his son's excitement for Puck Fire. "Our name in the fire industry could be as good as it is in the ag industry," he said. "That quality is going to carry over because it's foundational to us."

For more than 45 years, Marc Arp – and by extension his son RJ as he got older – has been a part of the Puck story. The Arps took on jobs that kept employees on the payroll all year long, and now find themselves selling and delivering parts to customers. For all their work and the experience they bring to the job every day, Puck is appreciative of RJ and Marc Arp. ■





# One Team, One Direction

As Puck continues to grow, the needs of the company shift to meet new demands. In 2026, it became clear we needed someone who could not only keep us grounded in Teamwork, Innovation, and Enjoyment, but also help bridge the physical distance across our Family of Brands. Among our employees, one person stood out as a unifying force with the experience and mindset needed for the role. Rusty Furtick stepped up from Plant Manager of BullDog Hose Company into the role of COO of Puck.

### Learning by Saying “I’ll Try”

Originally from the Angier, North Carolina area, Rusty began working at the hose plant while still in high school. “I started coming in after school to weld,” recalled Rusty. “What I learned early - out of necessity - was that if someone was going to ask you to do something you may not think you can do, you’re certainly gonna say, ‘I’ll try.’”

That attitude carried Rusty through years of taking on more responsibility, from opening the plant at four in the morning to taking ownership of department-level projects. His willingness to step up helped keep him around through major changes, including the first time the plant was sold while he worked there.

### Surviving Change and Learning from It

“It was a scary time. My wife was pregnant with our first child. All I knew was working at that plant, I didn’t have another career path,” said Rusty. When his manager was uncooperative during the sale process, Rusty found himself answering questions from the acquisition team. With working

knowledge across most departments, he proved valuable enough to survive the large round of layoffs that followed.

That sale wouldn’t be the last. Over the next few decades, the North Carolina hose plant changed hands multiple times, often undergoing operational shifts meant to attract new buyers. With each transition came new leadership, and Rusty found lessons in both effective and ineffective management. “There’s a big difference between someone meddling in everything you do and someone supporting you,” he explained. “Slow change can kill growth.”

### Finding a Different Kind of Ownership

Built in the 1970s, the Angier plant has produced everything from traveler hose to fracking hose to fire hose, depending on ownership priorities. That began to change when Ben and Jeremy Puck entered the picture. Their journey to purchase the hose plant started in 2017 and finally became reality in early 2018.

From the start, the new leadership felt different. “Jeremy does a better job at his level as an owner than most people at his level do,” Rusty said. While not everyone initially believed in the vision, ownership stayed committed, even through difficult early years. “For three years, we couldn’t make anything worth a crap,” Rusty admitted. “I felt terrible. But Puck didn’t lose hope in BullDog.”

### Real R&D and Real Progress

What followed was true experimentation. “It was iteration after iteration of 8” and 10” sludge,” Rusty said, as teams worked to perfect hose for dragline operations. Ownership allowed the space for real R&D and testing hose behind tractors and gathering real-world feedback. That process helped the team learn more about hose manufacturing than ever before, even after decades of experience.

### Looking Ahead as COO

As COO of Puck, Rusty sees a future built on collaboration across the Family of Brands. “I want one group to understand another’s limitations and figure out how to turn those limitations into opportunities,” he said. He’s focused on developing and retaining the talent already within the organization. “Is that what most operations people do? I don’t know, but that’s what I’m going to do.” ■



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